TANCO AUTOWRAP
404 S/M MINI BALE WRAPPER
OPERATORS HANDBOOK
WD03-404 S/M

MODELS:

- **404 M – Linkage mounted with cut and start, tipping facility and manual control**
- **404 S -- Linkage mounted without cut and start or tipping facility**

GUARANTEE

Subject to hereunder provided, the sellers undertake to correct either by repair or at their election by replacement any defect of material or workmanship which occurs in any of its goods within twelve months after delivery of such goods to first user, with the exception of contractors or commercial users when warranty period is six months.
In respect of Autowraps the warranty period is for 12 months or 8000 bales, whichever occurs first.

The term goods when used in this document means the article or articles described in invoices as sold by the sellers but dose not include equipment or proprietary parts or accessories not manufactured by the sellers. The sellers, however, undertake to pass on so far as they legally can to the first user the benefit of any warranty given to the sellers by the suppliers of such equipment, parts or accessories.
This understanding shall not apply to:-

(a) Any goods that have been sold by the first user.
(b) Any goods which have been injured by unfair wear and tear, neglect or improper use.
(c) Any goods the identification marks of which have been altered or removed.
(d) Any goods that have not received the basic normal maintenance such as tightening of bolts, nuts, tines, hose connections and fittings and normal lubrication with the recommended lubricant.
(e) The use of any product on tractors exceeding the recommended horsepower.
(f) Any goods that have been altered or repaired other that on instruction or with the written approval of the seller or to which any part not manufactured or having written approval by the sellers have been fixed.
(g) Any second-hand goods or parts thereof.

Any allegedly defective part or parts returned to the seller must be sent carriage paid. No claim for repair or replacement will be entertained unless upon discovery of the alleged defect written notification is sent to the Sellers giving, at the same time, the name of the Buyer from whom the goods were purchased and the date of purchase, together with the full details of the alleged defect and the circumstances involved, also the serial number of the machine etc.

The sellers shall be under no liability to their Buyers and first or subsequent users of their goods or to any other person or persons for loss or damage howsoever arising in respect of either personal injuries or for arising out of, or in any other way connected with or arising from the manufactures sale, handling, repair, maintenance, replacement or use of its goods or the failure or malfunction of any of its goods.
Representation and/or warranties made by any persons (including Buyers and employees and other representatives of the Seller) which are inconsistent or conflicting with these conditions are not binding upon the sellers unless given in writing and signed by a director of sales.

CLAIMS

If you wish to make a claim under the guarantee:

1: Immediately, stop using the machine.

2: Photocopy and fill out the warranty claim form attached to the back of this manual. List the details of the machine, its serial number and the part number of the damaged part.

3: Consult with your Tanco dealer (supplier) and have him forward your claim and the damaged item to Tanco.

USER'S MANUAL

MINI WRAP 404 S/M

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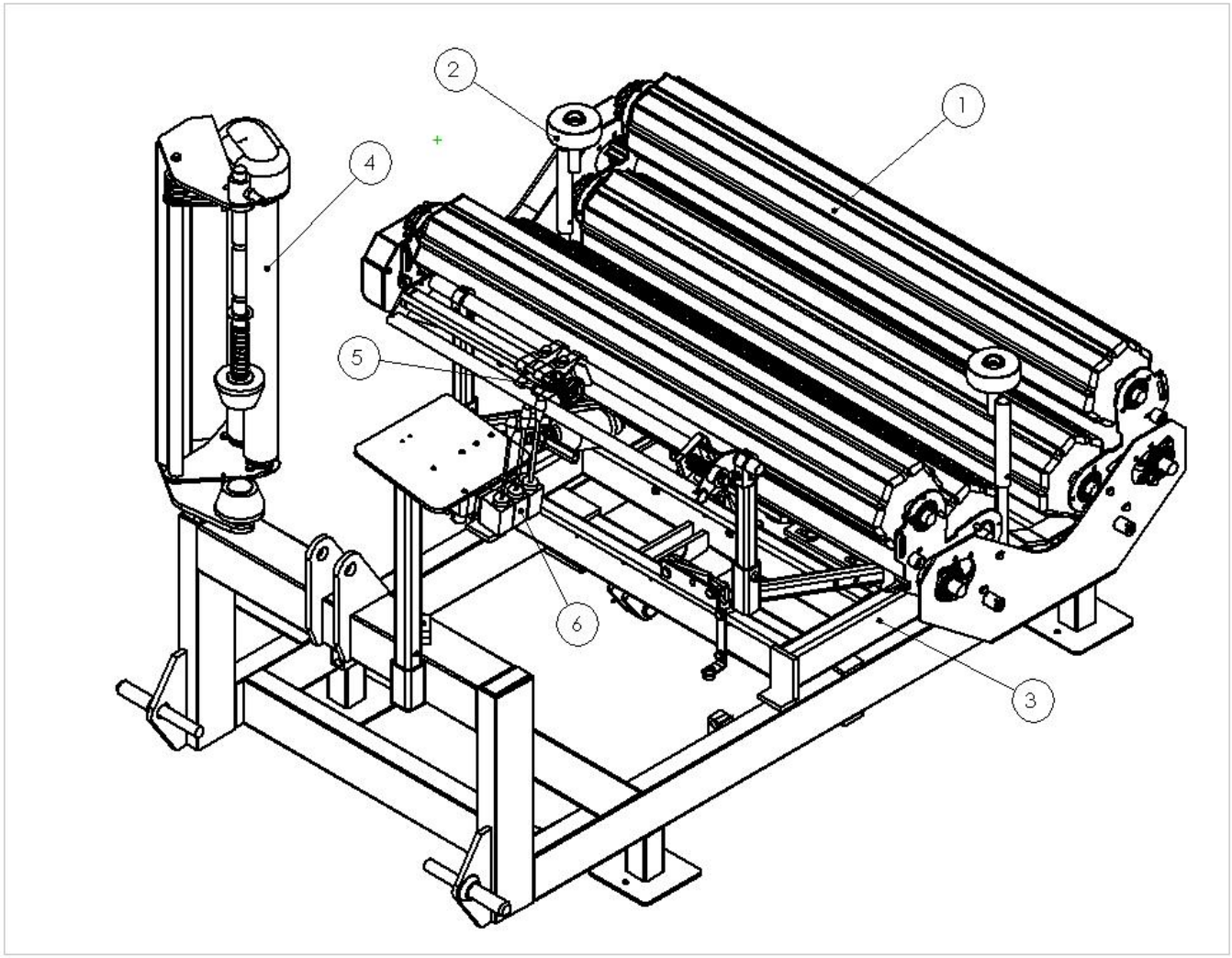

Fig 1.- 404 S/M Model

1. Roller
2. Support Roller
3. Tipping Frame
4. Film Dispenser
5. Cut & Start
6. Control Valve

1.0 INTRODUCTION.

TANCO AUTOWRAP Ltd. congratulates you with the choice of MINI WRAP bale wrapping machine. We are certain you will be satisfied with the machine, and that you will have the pleasure of your investment for many years.

MINI WRAP 404 S/M is hydraulically driven by the tractors hydraulic system, and is easy to operate with Autostop function and RDS wrap controller.

The MINI WRAP 404 S/M is designed to be a simple and effective bale wrapping machine square bales.
MINI WRAP 404S/M is estimated for wrapping bales of grass, hay or straw, it can handle bales from 35cm x 45cm up to 50cm x 50cm. The bales must have a weight of at least 35kg.

This manual is meant to explain how MINI WRAP is prepared, mounted, used and how it works, and shall together with the spare part's list be a reference for maintenance and troubleshooting. So take good care of the books, they are a part of the machine.

Read carefully through this manual, and specially chapter 2.0, safety instructions, before starting the machine, and follow the instructions thoroughly. If problems should occur, please contact your MINIWRAP dealer. Ask your dealer for advice before you make the problem worse than it is. See also chapter 14.0, Warranty claim forms.

Technical Specifications	**MINI WRAP 404 S/M**
Height in working position	930 mm
Width	1640 mm
Length	3200 mm
Weight	625 kg
Turntable speed, recommended	22 rev, per minute
Turntable speed, max.	27 rev, per minute
Bale size, max.	500 x 500 x 1150 mm
Bale weight, min	35kg
Pre-stretcher	500 mm
Hydraulic connection	I single spool outlet + free return
Oil pressure / amount, mm.	100 bar / 15 liter per minute
Oil amount, max.	30 liter per minute
Counter pressure, max.	10 bar

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2.0 SAFETY PRECAUTIONS.

TANCO AUTOWRAP Ltd does not take the responsibility for damages that may occur on machine, persons or other equipment, because of the machine NOT being used as described in this manual, or because of the safety precautions NOT being followed.

2.1 SAFETY EQUIPMENT.

Before using the machine, make sure that all guards and covers are securely fitted. The machine must not be operated if a function does not work as described later in this manual. (See chapter 2.5).

2.2 BECOME FAMILIAR WITH THE OPERATIONS OF THE MACHINE.

If you are unsure how to operate the machine properly, either use of or maintenance to your Mini Wrap, please contact your Mini Wrap dealer.

2.3 ADJUSTMENTS' / MAINTENANCE.

Turn off the tractor and discharge the oil pressure before performing any adjustment or maintenance on the machine. Remember that a well-maintained machine is a safe machine.

2.4 IMPORTANT!

ALWAYS MAKE SURE THAT NOBODY IS INSIDE
THE MACHINE'S WORKING AREA WHEN IT'S IN USE.
SAFETY DISTANCE IS 5 METRES

THE MACHINE MUST NEVER BE OPERATED BY PERSONS WHOM DOES NOT KNOW ENOUGH ABOUT HOW TO SAFELY OPERATE THE MACHINE, OR BY PERSONS UNDER 16 YEARS OF AGE.

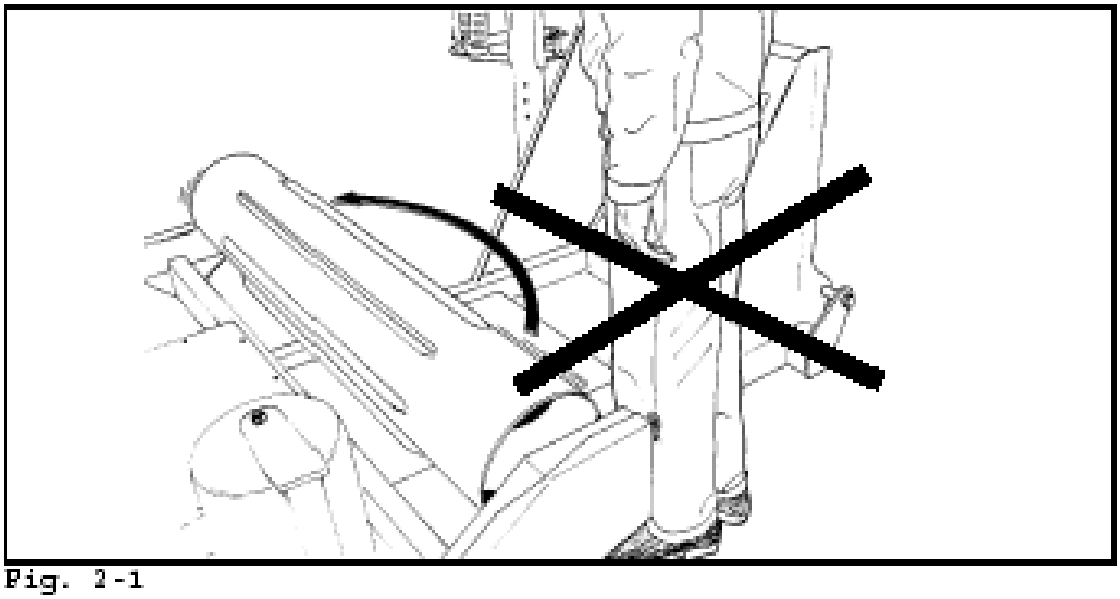


Fig. 2-1

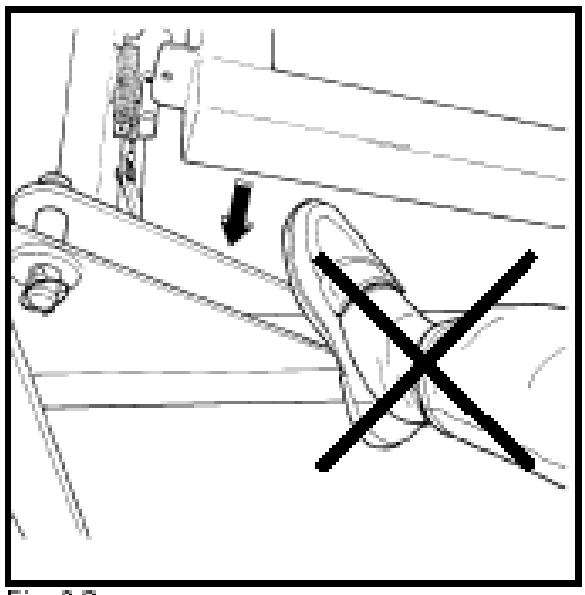


Fig. 2-2

2.5 DANGEROUS AREAS.

TANCO AUTOWRAP Ltd has given the safety to the operator the highest priority, but it is still impossible to secure oneself of every danger area on the machine. Therefore we will now go through some of the dangers that can occur when using the Mini Wrap bale wrapper.

1. Be especially aware of the rotating turntable. There is a danger of being squeezed between the turntable and the main frame.

2. When the wrapping of a bale is complete and tipped off the machine, the turntable has to be tipped back before wrapping next bale. When the middle frame with turntable is lowered, there is a squeeze danger between the middle frame and the main frame on both sides and in the back end of the machine. Keep therefore hands and feet at a safe distance. (Fig. 2-2).

3. When tipping the turntable, the bale will roll free off the machine. Staying behind the machine can cause danger for "overrunning" by the bale when it rolls off. Make therefore sure that nobody is behind the machine when unloading.

2.6 WHILE WRAPPING.

Please keep your hands on the controller during the wrapping prosess.
The machine is to stand horizontally while the wrapping takes place. Make sure that nobody comes into the working area of the machine.

2.7 TRANSPORTING.

When transported on a public road there are certain safety measures that must be taken:

1. Make sure that the machine does not cover the tractors' lights. If necessary, mount extra lights.
2. Always transport the machine with the turntable in transport position. Hydraulic hoses must be disconnected under transport.
3. Always transport the machine in the lowest possible position.
4. Make sure that at least 20% of the tractor's total weight is on the steering wheels.

3.0 GENERAL INFORMATION ON BALE WRAPPING.

3.1 THE PRINCIPLE.

The advantages of round/square bale silage are many, and include fewer feed units, a flexible harvesting system, large capacity and the possibility of selling feed units.

In principle, the same fermentation processes occur whether the fodder is placed in a silo or pressed into bales and packed in plastic, i.e. lactic acid fermentation in anaerobic conditions. The oxygen in the bale must be exhausted before fermentation begins.

The grass should be dried to approximately 30-40% solid content. The solid content can be determined by twisting the grass by hand. If drops of liquid are forced out of the grass, the solid content is less than 25%. Low solid content, (wet grass), can lead to increased butyric acid fermentation if preservatives are not added to the grass. If the solid content is too high, (over 50%), normal fermentation will not take place and there will be enough oxygen in the bale to produce mould fungus.

3.2 THE BALER.

It is vital that the baler produces compact, well-formed bales, as misshapen bales can be difficult to wrap. Wrapping will also often take longer, thereby increasing the amount of plastic used.

3.3 TYPES OF PLASTIC.

A good type of plastic with good adhesive properties, and which is recommended for bale wrapping, must be used. The thickness of the plastic film should be at least 25 micron. (25/1,000 mm). In order that the plastic tightens sufficiently around the bale, it is stretched before being wrapped, so it is somewhat thinner when it is put on the bale. With short-term storage, (up to eight weeks), it is recommended that bales have a minimum of four layers of plastic at the thinnest points, with at least 52-53% overlap.

For long-term storage, or when the grass is wet when it is wrapped, the bale should have Six layers of plastic applied, and the same amount of overlap. If thinner plastic is used, more layers should be applied. If it is very hot the plastic will be stretched further, and more layers should be applied. It is better to have slightly too much than too little plastic on the bale.

From experience, light coloured plastic produces slightly lower temperatures within the bale, and tends to improve feed quality.

3.4 STORAGE LOCATION.

Care should be taken in finding a suitable location for the storage of bales. The storage location should preferably be prepared before the bales are laid out. An elevation close to well-drained roads is recommended. If the wrapped bales are simply placed on stubble there is a danger of the plastic being pierced. A tarpaulin or a thin layer of sand should therefore be laid where the bales are to be stored over the winter.

Bales should be stored in the shade as far as possible. This reduces the danger of air leakage in the bales. A bale that is stored in sunlight and which therefore undergoes greater swings in temperature "pumps ins' a great deal of air in comparison to a bale which is stored in the shade. According to ~'Teknik for Lantbruket" [Technology for Agriculture] in Sweden, a bale which is stored in the shade has only 40% of the air leakage of a bale which is stored in sunlight.

3.5 STACKING *I* PROTECTION.

If bales are hard and well formed, they can be stacked vertically, but loose and misshapen bales with low solid content should not be stacked higher than one layer, as this could easily cause deformity and the danger of runoff will be increased.

Bales can also be stored on their sides. The layer of plastic is thicker here, providing greater protection against piercing.

Bales should be covered with a tarpaulin or a fine-mesh net to protect against birds and small

rodents. If the plastic is pierced, it must be sealed with weatherproof, hard-wearing tape, preferably under the outermost layer of plastic. Ensure that the hole is adequately sealed.

3.6 The best wrapping results are obtained by...

1. ...Harvesting the grass early.
2. ...Drying it out to 30-40% solid content. If there is a danger of rain, bale and wrap the grass anyway.
3. ...Taking care not to mix any earth in with the grass.
4. ...Using a baler which produces even, firm bales.
5. ...Wrapping the bales soon after baling, never later than two hours afterwards.
6. ...Using a good type of plastic and six layers of plastic. This removes the need to use preservatives.
7. ...Storing bales in the shade to reduce the danger of air leakage.

4.0 SETTING UP / MOUNTING OF THE MACHINE.

4.1 Mounting the Lower link pins.
Attach the lower link pins to the machine and tighten the nuts.

4.3 Mount the Film Dispenser**.**
Adjust the height on the Dispenser so that the middle of the plastic meets with the bale's center.

4.4 Mount the safety arm to the Chassis

4.5 Lubricate the machine.

4.6 Check that all the bolts and nuts are tightened.

4.8 Connect the machine to the tractors three point linkage.

4.9 HYDRAULIC CONNECTION.
The hydraulic hoses between machine and tractor are equipped with *1/2'* ISO male quick-couplers. Discharge the oil pressure before you connect the oil hoses. Use the tractors' hydraulic lever. Connect the hoses so that the turntable rotates counterclockwise.
To make sure that the bale wrapper works properly, the tractors' oil pressure has to be at least 100 bar. If you are unsure of what oil pressure the tractor gives, or what oil pressure the bale wrapper receives, please contact your machinery dealer.

NB! When connected to a tractor with closed center (e.g. JOHN DEERE) a special, closed centers, plug must be fitted to the valve to prevent the oil over heating (See section 13.0 and consult your dealer).

4.10 CHECK LIST.
Before using the machine it is recommended to follow this check list:

1. Make it a habit to discharge the oil-pressure before connection or disconnection of the hydraulic hoses. (Use the tractors hydraulic control lever).

2. Hose with BLUE CAP = RETURN OIL.

3. Hose with RED CAP = PRESSURE.

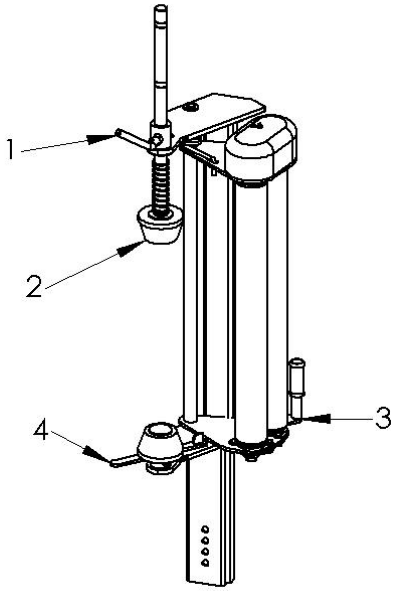
4. Tie up loose hoses so that no squeeze damages occur.

5. Start the tractor and try out the functions. (It should rotate counterclockwise).

6. Check all connections, hoses and couplings. If there is any oil-leakage, it should be rectified immediately.

Your MINI WRAP bale wrapper has been tested in practical operation in approx. 2 hours at the factory.

5.0 MOUNTING OF THE PLASTIC FILM



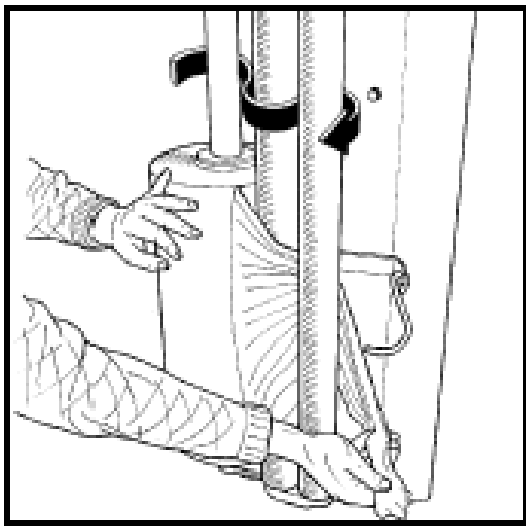


Fig. 5-2

5.1 When loading a plastic roll, first push back the Stretch rollers (3) until held in position by locking catch (4). Then loosen locking bolt (1) and raise top cone (2) and lock in raised position.

5.2 Place a roll of film on to the Dispenser. Drop the top cone down and apply pressure to the top of the shaft to compress the spring and allow the locking bolt to close one of the grooves in the shaft.

5.3 Pull the film between the rollers on the pre-stretcher in the direction of the arrow. (See fig. 5-2). (See also the sticker on the dispenser).

5.4 Release the locking catch and allow the rollers to lie against the roll of film. Pull the film from the roll and tie it to the bale.

5.5 HEIGHT ADJUSTMENT OF DISPENSER/ PLASTIC FILM.

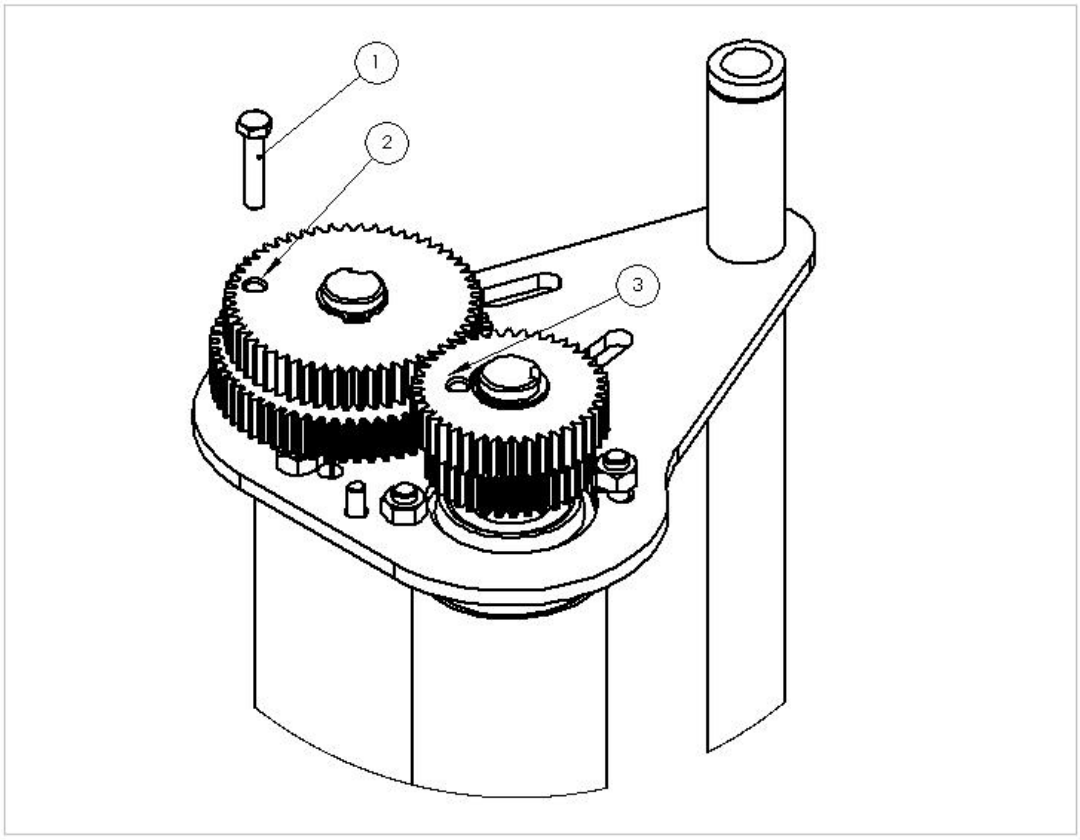
It is important that the plastic film is applied to the center of the bale, and therefore it can be necessary to adjust the height of the Dispenser. The Dispenser may be adjusted to different heights. Disconnect the locking bolt, and adjust the dispenser so that the plastic hits in the middle of the bale. Replace the locking bolt and the splint.

The Tanco film Dispenser supplied with all 404 machine is capable of using several different sizes of film rolls. 500 mm, 360 mm and 250 mm plastic film can all be used but care must be taken that the correct level of overlap is used as you need turntable roller speeds for different films. (see also 6.4 Overlap)

5.6 Tanco Dual stretch Film Dispenser

Some Tanco Autowrap machines can optionally be fitted with a patented dual stretch gear system.

This system enables a quick change of stretch levels on the Film Dispenser.



If the bolt (1) is fitted in position 2, the bottom set of gears provide the stretch (70%).

By removing the bolt from position 2 and fitting it in position 3, the top set of gears become the stretch gears giving 32% (for prestretched film) or optionally 55% (for use in hotter climates or with square bales).

Tanco Dispenser Gear Combinations

Inner Gear	Outer Gear	% Stretch
60 Tooth	35 Tooth	70%
58 Tooth	37 Tooth	55%
54 Tooth	41Tooth	32%

6.0 ADJUSTMENT / OPERATING.

6.1 SUPPORT ROLLERS.

Place the bale you want to wrap on top of the rollers. Move the support rollers as tight to the bale as possible. Make sure that the bale is in center of the rollers.

6.2 HEIGHT ADJUSTMENT OF DISPENSER.

The Dispenser can be placed in different positions. Disconnect the locking bolt, and adjust the pre-stretcher so that the plastic hits in the middle of the bale. Replace the locking bolt and the splint.

6.3 Operating the RDS control box

See chapter 8

6.4 REVOLUTION SPEED OF TURNTABLE.

Start the machine by operating the lever inside the tractor. All 404's are equipped with an adjustable valve on the outlet from the main valve block to the motor. Screw in to reduce turntable speed. Adjust this until the turntable speed is approx. 22 revolutions per minute (Just below 3 seconds per revolution) and lock the knob in position by tightening the allen-headed screw on the knob.

6.5 OVERLAP.

To control the overlap, stop the machine after a few turns. Use a marker to mark a line on the middle of the film wrapped on the bale. By the next turn this line should just be covered. It is now possible to use ether the 500mm, 360mm or 250mm film on the MINI WRAP 404EH. The machine is generally delivered set up for use with the 360mm film. Tanco recommend this size of film for best results.
If using 250mm or 500 mm film, a special set of sprockets need to be fitted to the turntable (inside the large chain guard) to maintain correct bale indexing speed. See parts books or contact your dealer for advice. The chains from the turntable's main shaft must be lengthened or shortened as required to ensure correct chain tension. Note that these are twin sprockets. Fit chain to larger sprocket for 250 mm film and on smaller for 500 mm film.

7.0 OPERATING INSTRUCTION.

We shall now go through a complete wrapping process, from loading to storage place, and explain the practical use of the MINI WRAP 404.

7.1 LOADING.

On the 404 M/S machine the Bale must be placed manually on the turntable.

7.2 HEIGHT ADJUSTMENT OF DISPENSER.

The height of the pre-stretcher has to be adjusted so that the plastic film is always hitting the middle of the bale. (See more about this in chapter 5.5 and 6.2).

7.3 TIPS ON WRAPPING SQUARE BALES.

The MINI WRAP 404EH is assembled for delivery with the rollers in the outer position. If the bales to be wrapped are in some degree smaller than mean measure then the rollers must be moved. (Optimally the film should meet the bale being wrapped in the middle.) The chain cover must be removed, and the Rocking roller assembly moved either in or out. The chain length must be adjusted so ensure the chain-tension is tightened before finally the bolts are replaced.
Remember that a hard and well packed bale will give the best result when wrapping.

7.4 START.

Remember that the plastic film end must be tied to the bale. This is normally only necessary on the first bale. Operate the hydraulic lever carefully to make a gently start. To quick start can rip off the plastic film, and then it has to be tied again.
The 404 M/S models are equipped with an AutoStop function, which enables semi-automatic operation of the machine. Once the turntable has made one revolution the spool lever is held in position by the bale counter until the preset number of rev.s has been achieved. The lever is then automatically released and the turntable stops in the correct "Off-Loading" position.

7.5 OVERLAP.

Control that the overlap is correct. If not, see chapter 6.4.

7.6 HOW MANY LAYERS OF PLASTIC FILM?

When the bale is completely covered with film, read the counter that displays the number of revolutions done by the turntable. If you don't have a counter, you have to count the revolutions yourself, (or you can measure the time it takes). This number has to be multiplied by 2 or 3, depending on how many layers of film you want to have.

- 4 layers - multiply by 2.
- 6 layers - multiply by 3.

7.7 STOP / UNLOADING.

On an S machine the Film must be cut by hand and the Bale lifted off the machine.
On an M machine, tip up the tipping frame until the film is lying in the cut and start jaws. Energize cut and start close until the film is gripped and cut. Continue tipping up until the bale falls off the table.

7.8 NEW BALE.

Lower the turntable down again. Then place a new bale on top of the rollers, and attach the film to the bale (404 S only), and start wrapping. Now the plastic film from the last should be cut off. Fasten the film end, if necessary, with some weatherproof tape.

8. Controller Manual

8.1. Introduction

What can it do?

8.2. The control switches

8.3. Using the instrument

8.3.1. Channel 1 - Current/Target Wraps display

3.1.1 Manually reset Current Wraps to zero
3.1.2 Program Target Wraps
3.1.3 Program Early Warning Alarm

8.3.2. Channel 2 - Store Totals

3.2.1 Display a Store Total
3.2.2 Select a Store Total
3.2.3 Reset a Store Total

8.3.3. Channel 3 - Part total

3.3.1 Display Part Total
3.3.2 Reset Part Total

8.3.4. Channel 4 - Grand Total

3.4.1 Display Grand Total10

8.3.5. Channel 5 - Bale Wrapping Rate

3.5.1 Display Bale Wrapping Rate
3.5.2 Reset the Timing Period

8.3.6. Channel 6 - Bale Wrapping Speed

3.6.1 Display Bale Wrapping Speed
3.6.2 Programme the Overspeed Alarm

8.3.7. Film Break Alarm

8.3.8. Total Reset

8.3.9. Other CAL Mode settings

Cut and Start Release duration
Film Break Sensor – On/Off

8.1. Introduction

The instrument has 6 channel functions with an illuminated 4 digit LCD display, 5 switches to control all functions and an internal alarm. An external alarm is optional.
The instrument is normally powered on via the vehicle ignition circuit and recalls the function displayed when the instrument was last used.

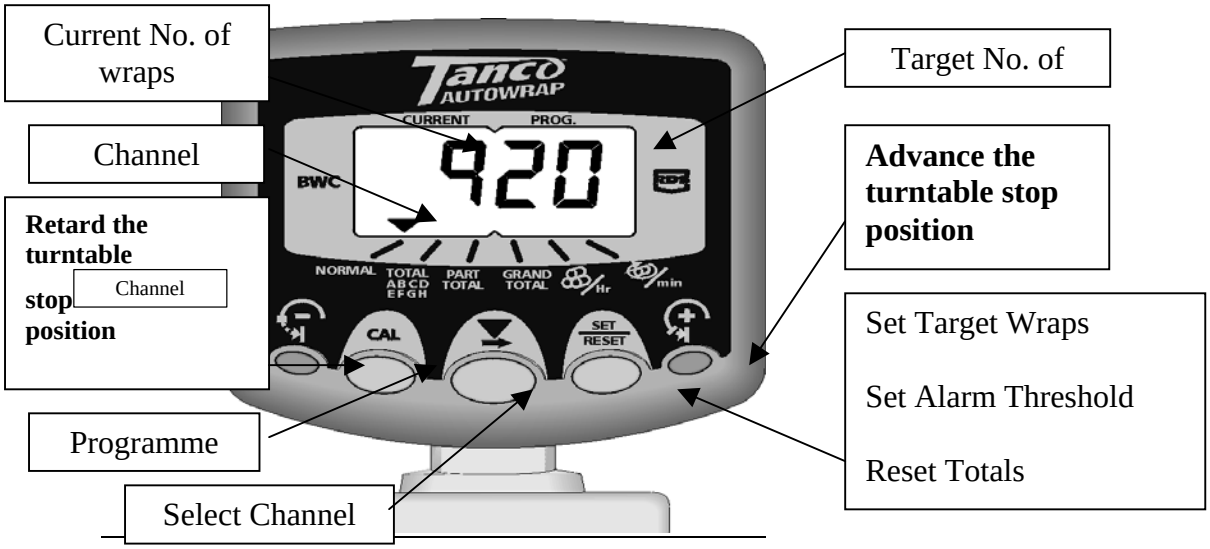
What can it do ?

- Continuously displays the current number of wraps around the bale alongside the desired (Target) number of wraps preset by the operator.
- Sounds an alarm at a preset number of wraps before the target number is reached.
- Automatically senses when the bale wrap sequence ends and records it to each of these memory registers:
  (i) Grand Total
  (ii) Part Total
  (iii) One of eight selectable Store Totals
- Displays the number of bales wrapped per hour, within any desired time period.
- Displays bale wrapping speed in rpm, and sounds an alarm when a preset speed is exceeded.
- Film break alarm and automatic stop.

8.2. The Control Switches

- Adjustable turntable stop position.

There are five switches on the front panel used individually or in combination to programme, set/reset or select a function.

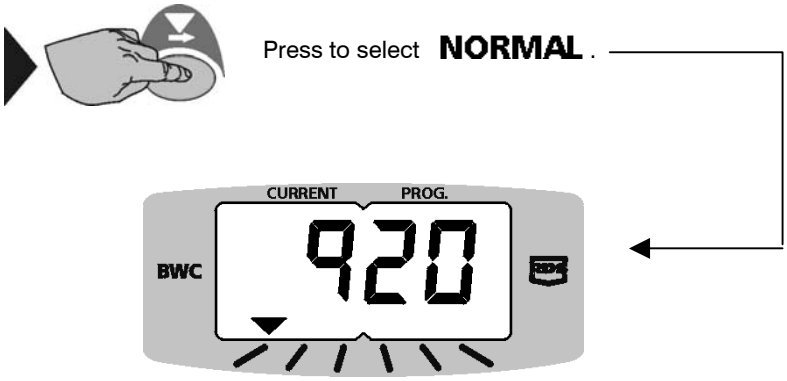


Channel 1	**NORMAL**	'Normal' display (Current/Target no. of Wraps)
Channel 2	**TOTAL ABCD EFGH**	Store Totals (A - H)
Channel 3	**PART TOTAL**	Part Total
Channel 4	**GRAND TOTAL**	Grand Total
Channel 5	/Hr	Bale Wrapping Rate

Channel 6 $\circledcirc/_{min}$ Bale Wrapping Speed

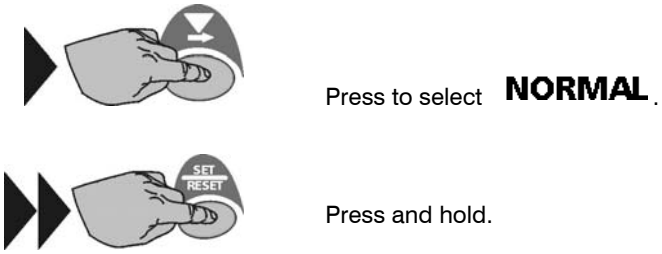
8.3. Using the Instrument

8.3.1 Channel 1 - Current/Target Wraps Display



The left-hand section shows the current number of wraps and the right hand section shows the target number. When the current number = Target number, the alarm will sound for 2 seconds and the display will flash. (If set, the early warning alarm sounds beforehand).
Automatic reset of current number to zero normally occurs 5 seconds after the Target number is reached. If additional wraps are added after the Target number is reached, the current number will continue to advance.

8.3.1.1 Manually reset Current No. of Wraps to Zero



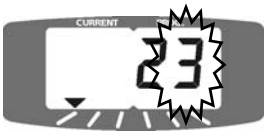
8.3.1.2 Programme the Target Wraps

Press to select **NORMAL** .

Hold continuously.

The third digit flashes.

Hold to cycle to the required digit then release, otherwise press once…



The fourth digit flashes.

Hold to cycle to the required digit.

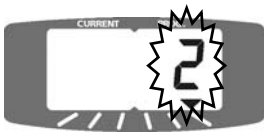
Release all.

8.3.1.3 Programme Early Warning Alarm

An early warning alarm can be programmed to sound from 1 to 9 wraps before the target number is reached. Depending on the setting, the alarm will sound long beeps for up to 8 wraps, short beeps for the final wrap, and then a continuous beep for three seconds.
For example, if the bale requires 22 wraps and you want an alarm at 20 wraps, then set the number to 2.
To effectively disable the alarm, set the number to 0.

Press to select **min** .

Hold continuously.



The fourth digit flashes.

Hold to cycle to the required digit.

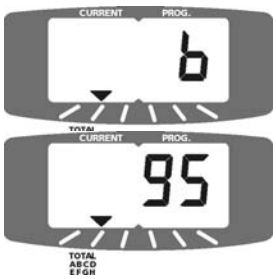
Release all.

8.3.2 Channel 2 - Store Totals

When bale wrap is complete, one of eight pre-selected memory store totals **A**, **b**, **C**, **d**, **E**, **F**, **G**, or **H,** is automatically advanced by 1. Store totals can be reset individually.

8.3.2.1 Display a Store Total

Press to select TOTAL ABCD EFGH .



The fourth digit displays the current store designation for 2 seconds.

The current total for that store then displays for five seconds, then defaults to channel 1.

8.3.2.2 Select a Store Total

Press to select TOTAL ABCD EFGH .

Select the desired store total (A – H).

This is now the default store, and subsequent bale counts are stored there until another store is selected.

8.3.2.3 Reset a Store Total

Press to select TOTAL ABCD EFGH .

Select the desired store total (A – H).

Press and hold.

8.3.3 Channel 3 – Part Total___

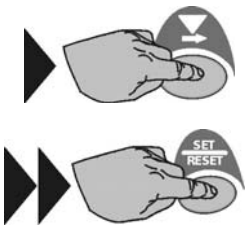
When the bale wrap is complete, the part total is automatically advanced by 1. The part total can be reset at any time

8.3.3.1 Display Part Total

Press to select **PART TOTAL**.

Part total displays for 5 seconds then defaults to channel 1.

8.3.3.2 Reset Part Total



Press to select **PART TOTAL**.

Press and hold for 5 seconds.

8.3.4 Channel 4 – Grand Total___

When the bale wrap is complete, the grand total is automatically advanced by 1. The grand total cannot be reset.

8.3.4.1 Display Grand Total

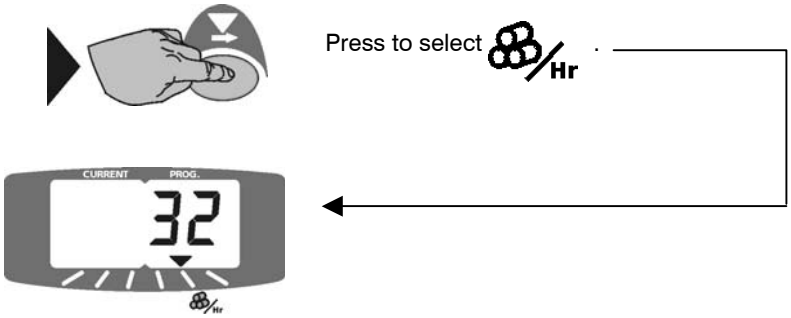
Press to select **GRAND TOTAL**.

Grand total displays for 5 seconds then defaults to channel 1.

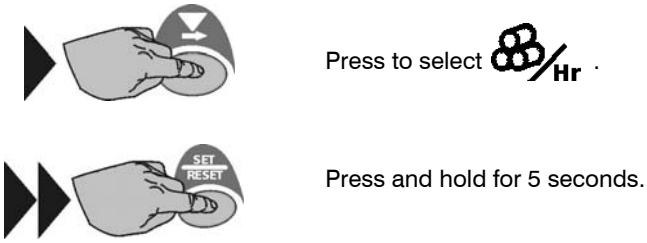
8.3.5 Channel 5 - Bale Wrapping Rate

Displays number of bales wrapped per hour. The time period over which the rate is averaged may be re-started at any time.

8.3.5.1 Display Bale Wrapping Rate



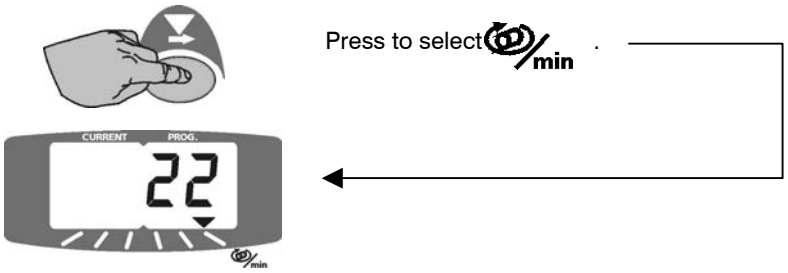
8.3.5.2 Reset Timing Period



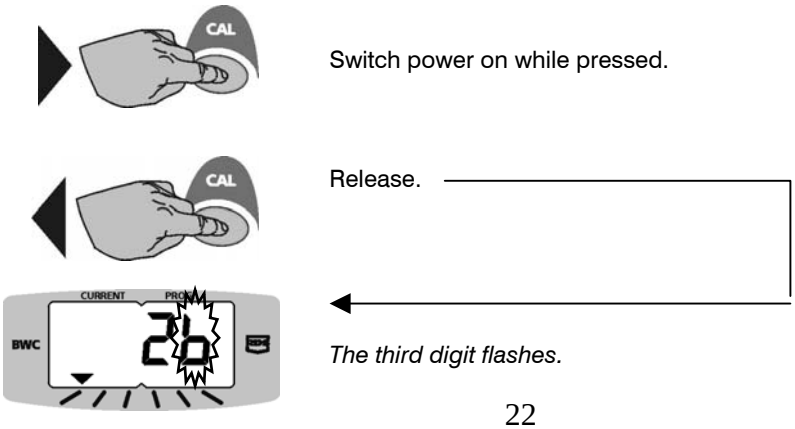
8.3.6 Channel 6 - Bale Wrapping Speed

Displays instantaneous r.p.m. of the bale wrapper at 3 second intervals in the range 10-99 r.p.m. An overspeed alarm will sound if the r.p.m. exceeds a pre-programmable limit. The display will default to this channel and flash for the duration of the overspeeding, subsequently reverting to the 'current/target wraps' display.

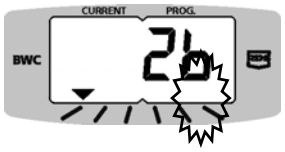
8.3.6.1 Display Bale Wrapping Speed



8.3.6.2 Programme the Overspeed Alarm



Hold to cycle to the desired digit, then release, otherwise press once…



The fourth digit flashes.

Hold to cycle to the required digit.

Release all.

8.3.7 Film Break Alarm

Only operational where optional film break sensor is installed (see parts book).
If the film should break, after 1 second the display will show "STOP", the alarm will sound and the turntable stops.
The film break alarm is only operational above a wrapping speed of 15rpm.

8.3.8 Total Reset

If for some reason the data in the instrument is corrupted or the display shows '**PrOg**' then the instrument must be totally reset.

. Switch power off.
. Press and hold all 3 control switches.
. Switch power on.
. Release all switches.

All instrument settings should be returned to the factory-set values. If the display shows '**PrOg**' again, the instrument may be faulty and must be returned to the manufacturer for inspection and repair.

8.3.9 Other CAL Mode Settings

Cut and Start Release duration

Switch the power on while pressing and holding the CAL button to enter Cal Mode 2.

Press the CAL button to select channel 2.

The default time is 3 seconds. Press /Hold the ▼ button to change the setting.

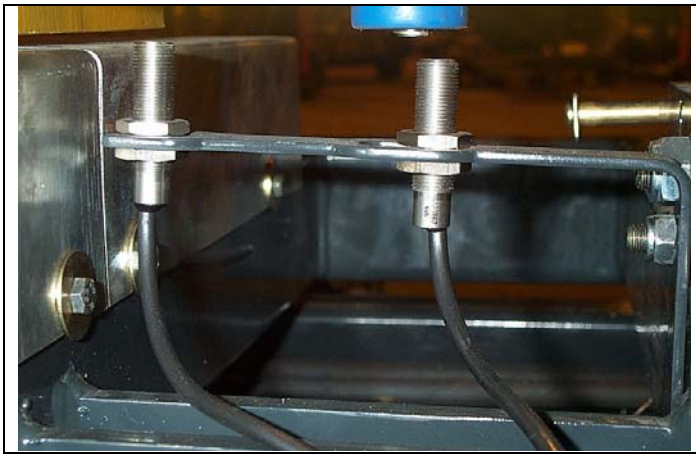
Film Break Sensor – On/Off

Enter Cal Mode 2 as above.

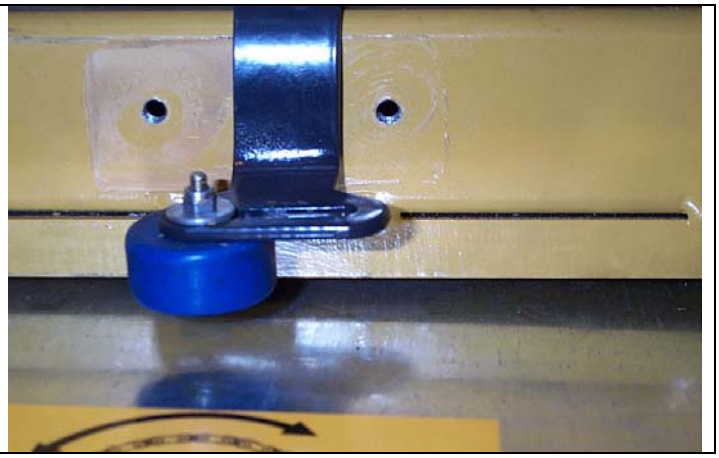
Press the CAL button to cycle to channel 3.

Press the SET/RESET button to toggle on/off.

8.4 404 M/S Sensors.



Rotate Senor – Left Hand one only



Rotate sensor Magnet

9.0 PERIODIC MAINTENANCE.

9.1 BEARINGS.

All ball-bearings are packed with grease, and do not need any more maintenance.

9.2 DISPENSER.

The Gears under the plastic cover on the dispenser should be greased once a week or as required.

9.3 CHAINS.

Oil the chains at regular intervals. Take them off once a year for cleaning and oiling. Soak the chains in oil for 2-3 days and afterwards hang up for 10-12 hours to drain.

After some use, the chain from the motor to the turntable has to be adjusted. Unlock the nuts on the motor bracket, and tighten up the adjustment.

DO NOT TIGHTEN TOO MUCH, CAUSE THIS WILL INCREASE THE WEARING OF THE BEARINGS.

The chains on the square rollers also have to be adjusted. There is one chain tensioner on each side.

9.4 GEAR.

The Bevel gears in the turntable's center (below the cover) must be greased when required.

9.5 HYDRAULIC CYLINDERS.

Make sure that the hydraulic cylinder is closed when storing the machine.

9.6 CLEANING.

The machine should be cleaned and oiled regularly and by the end of the wrapping season.

NB! **When using a steamer, you need to be careful with the electric equipment and bearings. Keep the counter protected from rain or water.**

9.7 QUICK COUPLERS.

Be careful to keep the quick couplers clean and apply the dust caps after use. The connecting hoses are to be placed in the holders, on the side of the machine when not in use.

9.8 STORAGE.

The machine should be parked on a dry place during the closed season.

10.0 CHECK POINTS BEFORE TROUBLE SHOOTING.

In this chapter we have some general check points that have to be examined first if something is wrong with the machine. In chapter 11.0 we have a more detailed trouble shooting.
There are two basic assumptions that have to be fulfilled if the machine shall function properly:

1. The oil pressure from tractor should be 180 bar.
2. The return flow of oil has to be as free as possible, max. 10 bar return pressure.

10.1 OIL PRESSURE.

In order to check that the oil pressure into the machine is high enough, fit a pressure gauge to the oil pressure hose, for example on the quick coupler.
If the pressure is less than 180 bar (when energizing a function), there will be less power for the functions.

OIL AMOUNT.
The oil amount that the tractor delivers must be minimum 15 liters/minute, (Max. allowed oil amount is 45 litres/minute).
REMEMBER! Large oil amount = Valves get hot. (Small oil tank = insufficient cooling).

10.2 RETURN PRESSURE.

The return line pressure can be too high. With high return pressure the machine's functions will get less power. High return pressure means also that you need more power to operate the valves.
MAX. ALLOWED RETURN PRESSURE IS 10 BAR.
If you are in doubt about the return pressure, arrange a "free return" directly to the tank.

PLEASE CONTACT YOUR DEALER IF YOU ARE IN DOUBT OF ANYTHING.
(Remember always to give your dealer the serial number and production year of your machine when contacting dealer and when ordering spare parts).

11.0 TROUBLE SHOOTING.

BEWARE OF MOVING PARTS WHEN TESTING THE MACHINE.

11.1 THE MACHINE DOES NOT WORK.

a) The gauge shows that there is enough pressure but there is no reaction from the machine. The problem can be that one or both of the quick couplers are not opening to let the oil through.

Change the quick couplers.

b) The return pressure may be to high.
Max. return pressure is 10 bar

11.2 THE TABLE WILL NOT ROTATE.

a) The safety valve on the motor, may be leaking, so that the oil passes the motor. Disengage the valve and check that the piston moves freely.
b) Check if the oil motor is working.
Ask your dealer for advice BEFORE you make the error larger and more difficult to repair.

11.3 LOAD ARM, TILT, TABLE OR CUTTER DOES NOT FUNCTION.

The cables have degraded, and must be replaced or there is a loose connection somewhere. Consult your dealer.

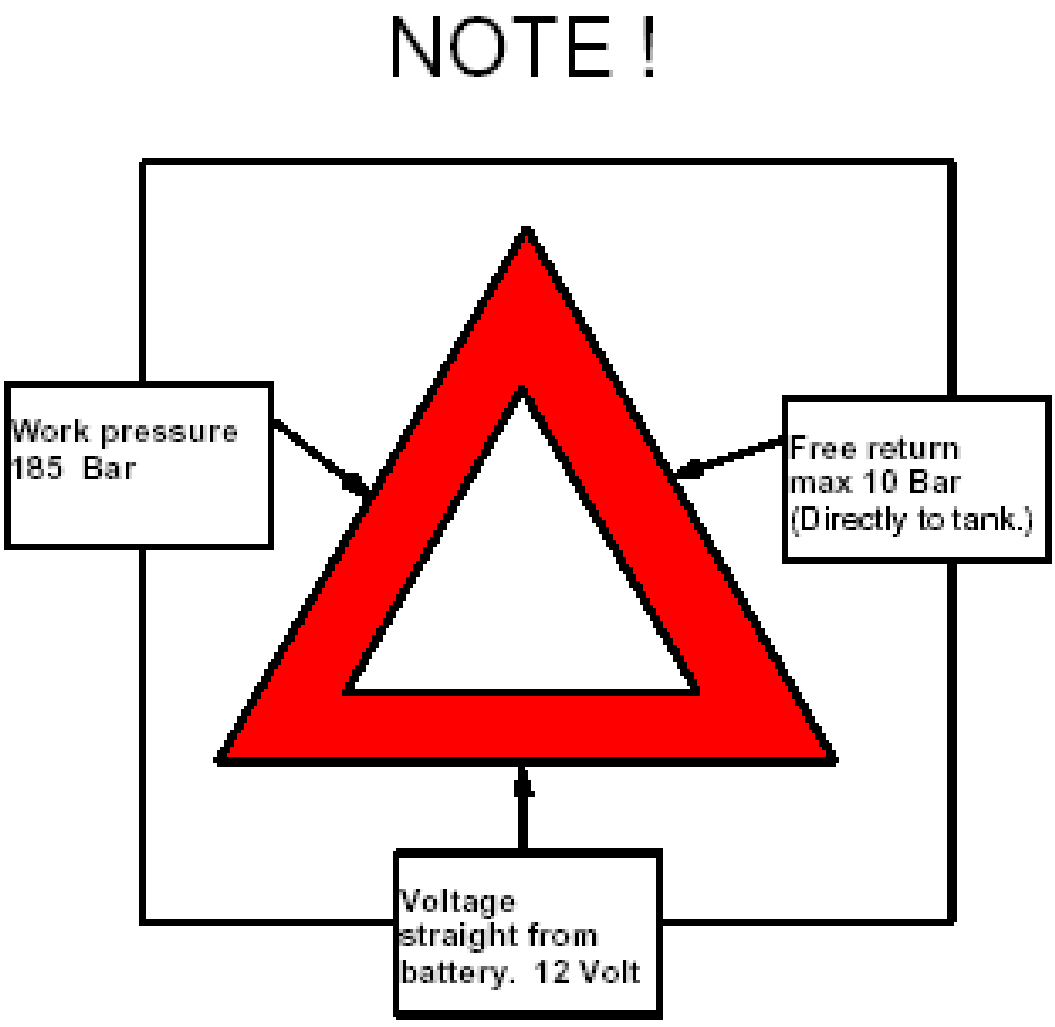
11.4 RETURN OFF KNIFE CYLINDER.
PRESSURE SETTING THE ACCUMULATOR.

A. Drive the knife cylinder to closed position.
b. Remove plug from the diverter valve behind the accumulator.
c. Connect hose from + knife cylinder on the diverter valve.
d. Open the knife with knife close function. (low pressure)
e. Connect hose back to knife cylinder
F. Test the knife.
G. If the knife dos not close, let out oil pressure on the return side of the knife cylinder until the knife is closed
H. If the knife dose not open, the pressure on return side its to high.

11.5 THE KNIFE WILL NOT HOLD THE PLASTIC FILM.

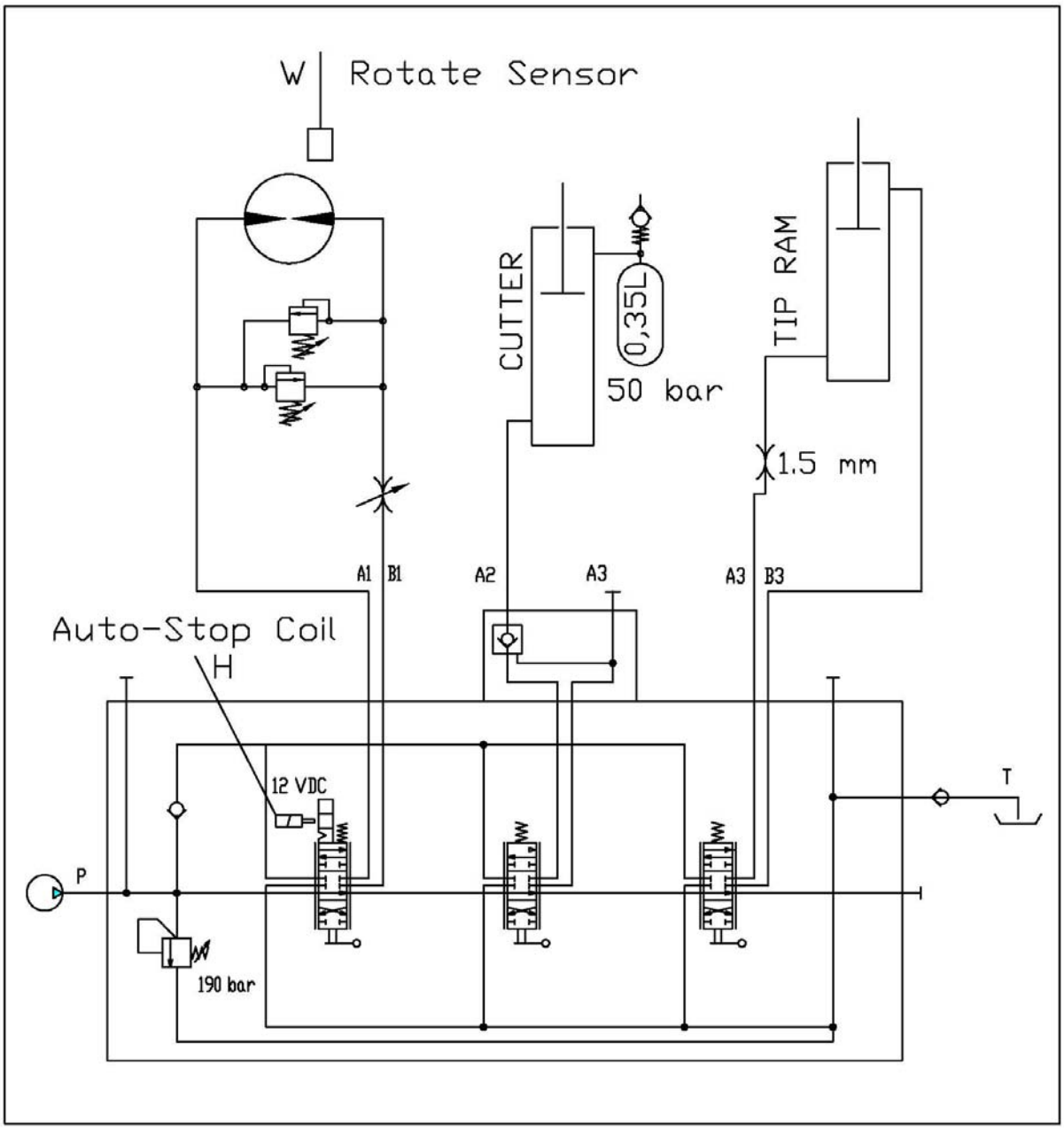
Check the pressure in the accumulator, see chapter *11.4.*

There are 3 basics which must ALWAYS be followed if the machine is to function correctly.

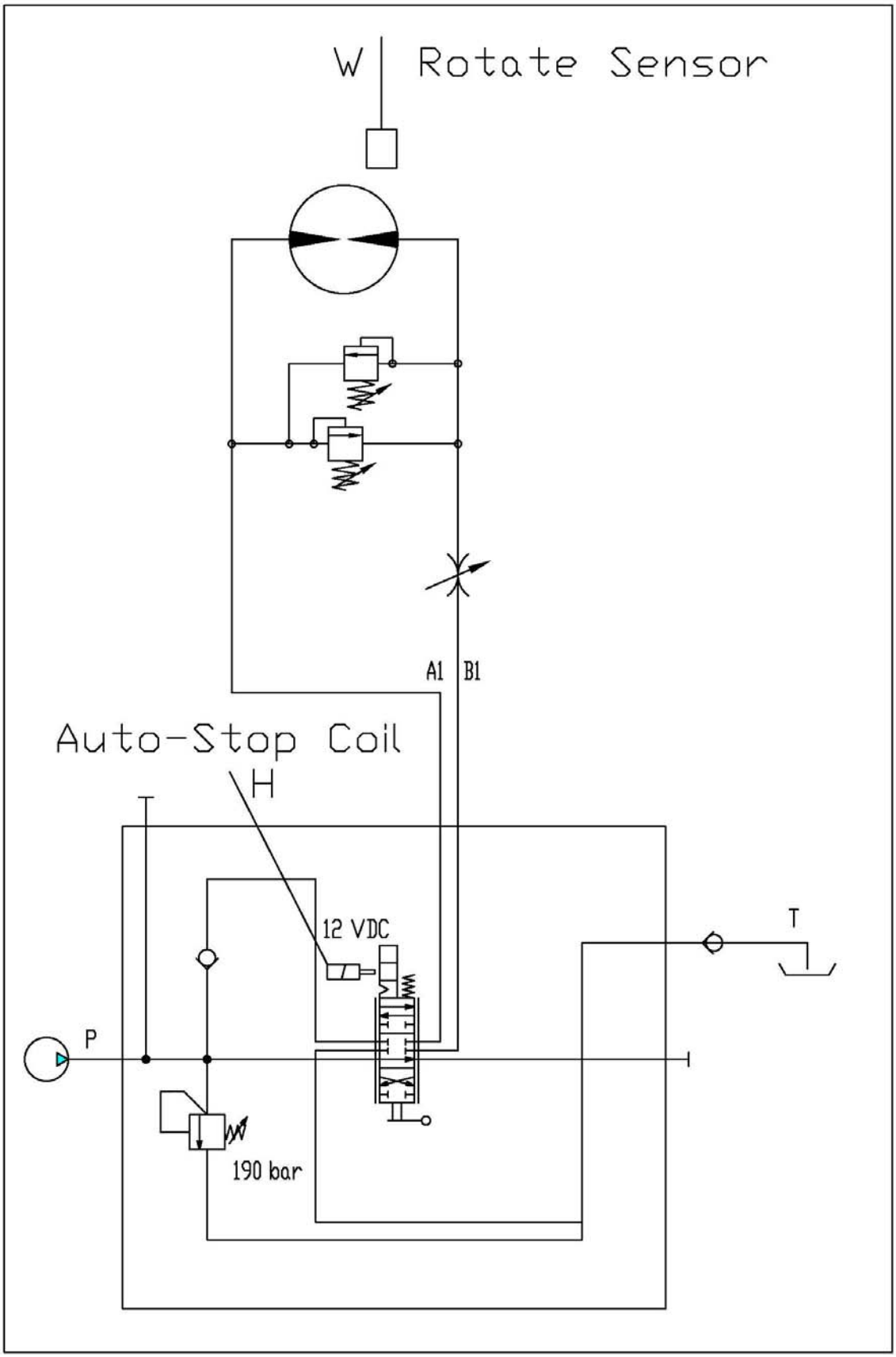


12.0 HYDRAULIC CHART

404 M Hydraulic circuit diagram

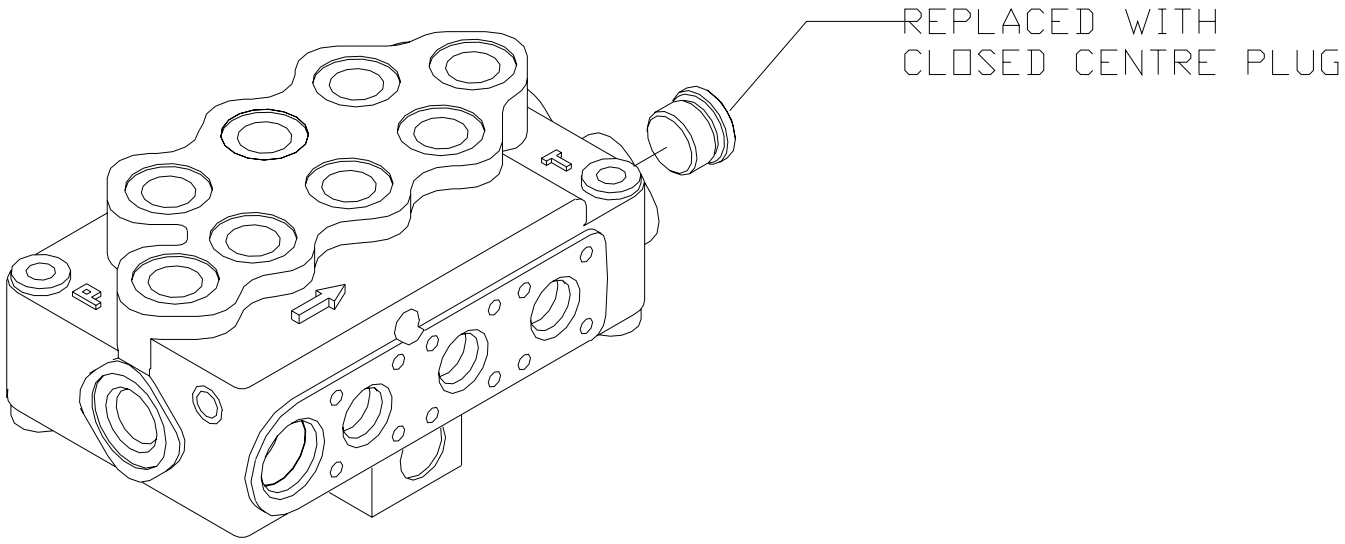


404 S Hydraulic Circuit



13.0 OPEN / CLOSED CENTRE CONVERSION

Most tractors are fitted with Open Centered Hydraulic systems. For this reason, our valves are set-up as standard for open centers. However some tractors (e.g. John Deere) use closed centered systems. Consult your dealer if you are unsure about your system requirements. To convert to closed centers a plug must be changed in the valve block. This plug is located on the valve just beside the outlet (T line). Remove the existing one and replace with closed center plug (Part No. Z01-03-A580J).



If you are likely to change frequently between open and closed centered hydraulic systems and special plug incorporating a tap can be ordered. (Part No. 1008050- closed center tap plug). This is fitted in the same position on the valve.

14. Warranty claim form

Customer details

Name & address;

Contact number and Name

Machine details

Date & dealer details purchased from;

/ /

Workshop details

Engineer's name('s) & date started;

Location of work carried out;

Individual times & dates spent on job;

/ /
/ /
/ /
/ /
/ /

Fault reported / work requested;

Work carried out;

Additional work required

Parts used

Part number or description	Qty	Cost

Costs incurred

Miscellaneous costs

Total =

Labour Hrs X =

Parts cost =

Grand total

=

Warranty Y /N____ Claim No _____

EU DECLARATION OF CONFORMITY

ACCORDING TO DIRECTIVES 89/392/336/EEC AS AMENDED

Manufacture: TANCO AUTOWRAP LTD
BAGENALSTOWN
CO CARLOW
IRELAND

CERTFIES THAT THE FOLLOWING PRODUCT:

AUTOWRAP

MODEL: 404 S/M

SERIAL NO.:

To which this declaration relates, corresponds to essential requirements of the Directive 89/392/336/EEC as amended.

To conform to these essential health and safety requirements, the provisions of the following harmonised standards were particularly considered:

EN 292 – 1,2, EN 294, EN1152, prEN 703, prEN 811, prEN 1553, prEN 982.

DATE: __ / __ / __ ***SIGNATURE:***_____

ANDREW DEASY
TECHNICAL MANAGER